

**FEDERAL TRANSIT ADMINISTRATION**

***TRANSIT BUS SAFETY  
PROGRAM***

**Task 5 - Development of Technical  
Assistance Projects/Best Practices**

**Draft Marketing Plan**

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## LIST OF ACRONYMS

|        |  |
|--------|--|
| AASHTO | American Association of State Highway and Transportation Officials |
| ADA    | Americans with Disabilities Act                                    |
| APTA   | American Public Transportation Association                         |
| APTS   | Advanced Public Transportation Systems                             |
| APWA   | American Public Works Association                                  |
| BRT    | Bus Rapid Transit  |
| BSMP   | Bus Safety Management Program                                      |
| CDL    | Commercial Drivers License   |
| CD-ROM | Compact Disk-Read Only Memory                                      |
| CVSP   | Commercial Vehicle Safety Plan                                     |
| CMV    | Commercial Motor Vehicle   |
| CPTED  | Crime Prevention Through Environmental Design                      |
| CTAA   | Community Transportation Association of America                    |
| DOT    | Department of Transportation                                       |
| FMCSA  | Federal Motor Carrier Safety Administration                        |
| FMCSR  | Federal Motor Carrier Safety Regulations                           |
| FMVSS  | Federal Motor Vehicle Safety Standards                             |
| FTA    | Federal Transit Administration                                     |

## LIST OF ACRONYMS (Continued)

|         |  |
|---------|--|
| HMR     | Hazardous Material Regulations                       |
| IDEA    | Innovations Deserving Exploratory Analysis           |
| ITS     | Intelligent Transportation Systems                   |
| ITSP    | International Transit Studies Program                |
| IVI     | Intelligent Vehicle Initiative                       |
| MCSAP   | Motor Carrier Safety Assistance Program              |
| MIS     | Management Information System                        |
| MTA     | Metropolitan Transportation Authority                |
| MTAP    | Multi-State Technical Assistance Program             |
| NHTSA   | National Highway Traffic Safety Administration       |
| NTD     | National Transit Database                            |
| NTI     | National Transit Institute                           |
| NTSB    | National Transportation Safety Board                 |
| PDF     | Portable Document Format                             |
| PMO     | Project Management Oversight                         |
| RTAP    | Rural Transit Assistance Program                     |
| SAMIS   | Safety Management Information System                 |
| SBIR    | Small Business Innovative Research                   |
| SCOPT   | Standing Committee on Public Transportation          |
| SSPP    | System Safety Program Plan                           |
| TBS     | Transit Bus Safety                                   |
| TCRP    | Transit Cooperative Research Program                 |
| TOPS    | TCRP Oversight and Project Selection Committee       |
| TPM     | FTA Office of Program Management                     |
| TRB     | Transportation Research Board                        |
| TRI     | FTA Office of Research, Demonstration and Innovation |
| TSI     | Transportation Safety Institute                      |
| UMTA    | Urban Mass Transportation Administration (now FTA)   |
| U.S.DOT | United States Department of Transportation           |
| WMATA   | Washington Metropolitan Area Transit Authority       |

## 1. BACKGROUND AND OBJECTIVES

The FTA Office of Safety and Security is advancing the Transit Bus Safety Program to improve the oversight and performance of the services it funds. Tasks that are in progress include:

- **Task 2 – Existing Regulations and Oversight** This involves identification and assessment of existing statutes and regulations emanating from the Federal, state and local levels that govern the safe operation of transit buses. In addition, related safety oversight responsibilities and technical assistance initiatives have been included, most notably:
  - The voluntary safety management initiatives of national transit organizations (APTA’s Bus Safety Management Audit Program and CTAA’s Transit Safety Plus Program)
  - Incentive programs promoted by insurance pools to enhance safety awareness and practices and to reduce the incidence and impacts of accidents.
  - The research, documentation, training, outreach and technical assistance programs and products sponsored by FTA, states, transit industry organizations, insurance pools, and others.
- **Task 3 – Development of a Model Transit Bus Safety Program** This involves the considerations of the external environment affecting transit bus safety and the possible models for developing an FTA Transit Bus Safety Program. The external environment encompasses the imposed regulations and oversight, and the existing missions of both transit operators and private oversight organizations. It is important to recognize the vast differences in size and resources of the various transit agencies in developing appropriate safety program options. A market segmentation approach is being utilized, since a “one size fits all” approach will not produce the desired results. This also influences the tools appropriate to facilitate the outreach and technical assistance requirements of Task 5.
- **Task 4 – Development of Public and Private Sector Advocacy Partnerships** This involves forging partnerships among the appropriate public agencies that have various regulatory, oversight, management, operating and technical assistance responsibilities with private industry associations that perform oversight and technical assistance functions in support of the missions of the respective organizations. Both public and private organizations have potential roles in the implementation of the Model Transit Bus Safety Program being developed in Task 3.

Task 5 will provide an overall technical assistance and outreach plan and specific tools and products. These will be designed to describe and promote the Model Transit Bus Safety Program and to transfer the “best practices” in transit bus safety to the agencies and operators responsible for service delivery and safety oversight. It is important to gear outreach and specific technical assistance products and programs to the appropriate

market to permit their efficient and effective utilization. Thus, planning for this task makes use of the outputs and guidance of the previous tasks. The figure on the following page depicts the relationship among the various tasks and the external inputs being utilized.

Execution of this task will be accomplished in close coordination with FTA's Office of Safety and Security. At this point, the specific set of products to be developed and utilized has not been determined; thus, generic products are described in the following sections. As the Transit Bus Safety Program tasks evolve, especially Task 3, the appropriate mix of technical assistance and outreach tools will be determined with the active participation of FTA, the Battelle Team, the transit association partners, transit operating agencies, governmental organizations at the Federal, state and local levels, and other interested parties.

The following sections of this Marketing Plan include a description and analysis of the following:

- Participants critical to full dialogue and communications in support of transit bus safety initiatives and current program involvement.
- Outreach and technical assistance mechanisms/tools available to adapt for the FTA Transit Bus Safety Program, with description of those currently being utilized by the FTA.
- Suggested outreach and technical assistance product and activities, with a schedule for their development and application.

## **2. TRANSIT BUS SAFETY: PARTICIPANTS AND EXISTING PROGRAMS**

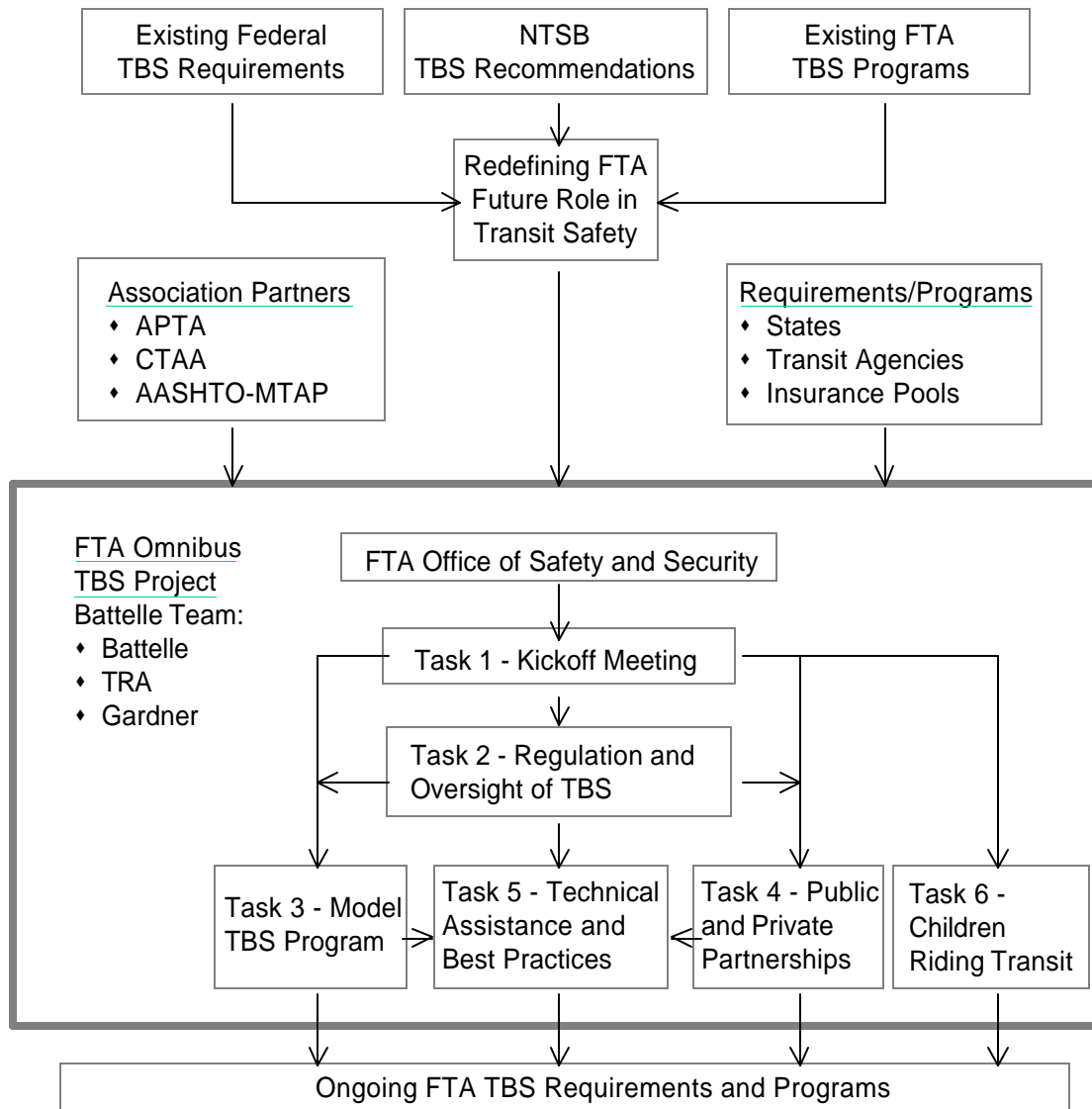
An important consideration in developing an effective program of outreach and technical assistance is to define all of the participants that have a potential role to play. While Task 2 enumerates in detail the regulations and oversight governing transit bus safety, the following provides a summary of the various groups and their current roles and responsibilities in transit bus safety:

### **2.1 Federal**

**Federal Transit Administration (FTA)** – provides leadership, oversight, technical assistance and financial assistance for safe public transportation to enhance mobility and accessibility. FTA entities most directly involved in transit bus safety include:

- **Office of Program Management (TPM)** – responsible for safety oversight, technical assistance and training through the **Office of Safety and Security (TPM-30)** for:
  - Safety & Security Training Program with Transportation Safety Institute (TSI)
  - Drug and Alcohol Testing Compliance Audits and MIS
  - Investigation of safety hazards

## FTA Transit Bus Safety (TBS) Program



- Transit Bus Safety Program
- Safety and Security Clearinghouse through the Volpe Center
- Safety Management Information Systems (SAMIS)
- Rail State Safety Oversight

Through the **Office of Oversight (TPM-40)** for general grant compliance and other initiatives including:

- Legal Technical and Financial Capacity
- Triennial Grantee Review
- Americans with Disabilities Act.
- National Transit Database (NTD)

Through the **Office of Resource Management and State Programs (TPM-10):**

- National Rural Transit Assistance Program (RTAP)

- **Office of Research, Demonstration and Innovation (TRI)** – responsible for research, technology development and technical assistance through the **Office of Technology (TRI-20):**

- Bus equipment technology development and assessment
- Advanced design transit bus specifications
- Altoona Bus Testing management
- Safety and security technology development and assessment

Through the **Office of Mobility Innovation (TRI-10)** for:

- Intelligent Transportation Systems (ITS) and Advanced Public Transportation Systems (APTS) development and assessment
- Intelligent Vehicle Initiative (IVI) development and assessment
- Bus Rapid Transit (BRT) Program

Through the **Office of Research Management (TRI-30)** for:

- Transportation Research Board (TRB) liaison including the Transit Cooperative Research Program (TCRP)
- National Transit Institute (NTI) training programs
- University Transportation Centers research, education and technology transfer
- Small Business Innovation Research (SBIR) Program

- **Regional Offices** – There are ten Regional Offices to monitor grants and compliance by states and transit operating agencies with applicable regulations and requirements. For major capital investment projects (usually fixed guideways), Project Management Oversight (PMO) consultants are assigned to FTA Regional Offices to extend the technical capability of FTA staff. The Regional Office staff may offer a capability in providing transit bus safety oversight and technical assistance.

**Federal Motor Carrier Safety Administration (FMCSA)** – established within the DOT on January 1, 2000. Formerly part of the Federal Highway Administration, the FMCSA’s primary mission is to prevent commercial vehicle-related fatalities and injuries. Administration activities contribute to ensuring safety in motor carrier operations through enforcement of its Federal Motor Carrier Safety Regulations (FMCSR), targeting high-risk carriers and commercial motor vehicle (CMV) drivers; improving safety information systems and commercial vehicle technologies; strengthening CMV equipment and operating standards; and increasing safety awareness. To accomplish these activities, the FMCSA works with Federal, state, and local enforcement agencies, the motor carrier industry, labor safety interest groups, and others.

The FMCSA specifically exempts transit bus carriers from its regulations, except that they must comply with commercial drivers license (CDL) and accident report-retention requirements.

The Motor Carrier Safety Assistance Program (MCSAP) is a Federal grant program for all states, territories and the District of Columbia. The goal of the MCSAP is to reduce CMV-involved accidents, fatalities, and injuries through consistent, uniform, and effective CMV safety programs by setting forth the conditions for participation. MCSAP promotes and provides incentives for the adoption and uniform enforcement of safety rules, regulations, and standards compatible with the FMCSR and Federal Hazardous Material Regulations (HMR) for both interstate and intrastate motor carriers and drivers. To receive MCSAP funds, a state must:

- Adopt and enforce state laws that are compatible with the FMCSR and HMR.
- Prepare a Commercial Vehicle Safety Plan (CVSP), which reflects a performance-based program.
- Adopt reporting standards and forms required by the FMCSA to record safety-related data obtained by work performed under the CVSP.

The FMCSA offers a safety program model that could be utilized by the FTA for a transit bus safety regulation, oversight and technical assistance model. The FMCSA’s Office of Enforcement and Program Delivery would appear to be the organization best suited for liaison with the FTA Transit Bus Safety Program, especially the following groups:

- State Programs Division
- Safety Action Programs Division.

**National Highway Traffic Safety Administration (NHTSA)** – has a legislative mandate to issue Federal Motor Vehicle Safety Standards (FMVSS) and regulations to which manufacturers of motor vehicle and equipment (including transit buses and paratransit vehicles) must conform and certify to compliance. These standards and regulations are minimum safety performance requirements for motor vehicles or items of motor vehicle equipment. These requirements are specified in such a manner “that the public is protected against unreasonable risk of crashes occurring as a result of the



design, construction, or performance of motor vehicles and is also protected against unreasonable risk of death or injury in the event crashes do occur.”

**National Transportation Safety Board (NTSB)** – An independent Federal agency mandated to investigate every civil aviation accident in the U.S. and significant accidents in the other modes of transportation, including transit. It also conducts special investigations and safety studies, and issues safety recommendations to prevent future accidents. An NTSB Special Investigation Report was issued on November 17, 1998 entitled *Transit Bus Safety Oversight* (NTSB/SIR-98/03) that has prompted this study. Communications with NTSB should be maintained by FTA to apprise them of the efforts being made in addressing their concerns and recommendations.

**Transportation Safety Institute (TSI)** – TSI is an element of the U.S.DOT’s Research and Special Programs Administration located in Oklahoma City that provides training related to all transportation modes. The Transit Safety and Security Division of TSI is the training unit for the FTA’s Office of Safety and Security. It provides a variety of courses and seminars to heighten industry awareness of the risks to public safety and security in the areas of human factors, operational practices, policies, procedures, and compliance with regulations. Examples of courses relevant to bus safety include:

- Accident investigation, analysis and prevention
- Alternative fuels safety
- Bus operator training for instructors
- Hazard identification and resolution
- Fatigue awareness
- Substance abuse program management and compliance
- System safety concepts
- State safety oversight compliance
- Transit industrial and workplace safety
- Fire/Life safety seminars
- Transit system security.

The following specific courses are either under development or being revised:

- Bus System Safety (being developed)
- Bus Collision Analysis (being developed)
- Crime Prevention Through Environmental Design (CPTED, being developed)
- Safety Evaluations of Alternative Fuels Facilities and Equipment (being revised)
- Emergency Response and Access to Alternative Fueled Vehicles (being revised).

Courses are offered at TSI in Oklahoma City as well as being conducted at various transit agencies throughout the country. Most courses are provided free for Federal and state agencies and FTA grant recipients, but a materials fee is charged. Some courses are only offered on a cost-recovery basis.

Certificates are issued to participants who successfully complete courses. In addition, The FTA and the TSI Safety and Security Division have established a certification program for Transit Safety and Security Practitioners.

**Volpe National Transportation Systems Center (Volpe Center)** – As an arm of the U.S. DOT's Research and Special Programs Administration, the Volpe Center provides research, technology development and technical assistance activities funded by the U.S. modal administrations and other Federal agencies. The Volpe **Center's Infrastructure Protection and Operations Division (DTS-78)** provides services to the FTA in support of safety and security initiatives. Current and recent support activities include:

- Drug and Alcohol Testing Compliance Audits
- Drug and Alcohol Testing Management Information System
- SAMIS
- Transit Safety and Security Clearinghouse
- Transit Safety and Security Bulletin Board and Internet Website
- State Safety Oversight Compliance.

Support provided to FTA by other Volpe Center divisions related to transit bus safety includes:

- Altoona Bus Testing Management Oversight
- Safety and Health Aspects of Bus Fuels Systems and Technologies
- IVI Needs Assessment
- BRT Initiative Technical Support
- APTS Program Technical Support.

## **2.2 National Transit Industry and Research Organizations**

**American Public Transportation Association (APTA)** – This transit industry organization represents bus, rapid transit and commuter rail systems, and entities responsible for planning, designing, constructing, financing and operating transit systems that carry over 90% of the transit passengers in the U.S. and Canada. APTA's staff efforts related to safety and security are led by the Director of Operations, Safety & Security Programs, who is participating in the FTA Transit Bus Safety Program.

APTA has developed and provides a ***Bus Safety Management Audit Program*** (BSMP) for its members for a fee based on system size. The BSMP is a comprehensive, 26-point framework for instituting and complying with system safety best practices. As part of the BSMP, APTA provides guidance and consultation to bus agencies to develop, institute and maintain a system safety plan designed for their unique systems, plus triennial on-site audits to ensure compliance and develop internal safety expertise. Program elements include the following:

- Hazard identification and resolution
- Accident & incident investigation and reporting
- Emergency response planning, training and coordination
- Safety data acquisition and analysis

- Configuration management
- Inter-departmental coordination
- Employee safety programs
- Drug and alcohol abuse programs
- Contractor safety coordination
- Security

APTA also has an extensive committee structure that includes the Bus Safety Committee (that includes guidance of the BSMP) and a Small Operations Steering Committee.

**Community Transportation Association of America (CTAA)** – While APTA tends to represent the larger transit agencies, CTAA is an association of organizations and individuals that provide a network of community-based agencies and coordinated services to fill the gap that exists between the private automobile and traditional mass transit.

In addition to providing a variety of technical assistance, training, clearinghouse and communications functions, they disseminate information under the Rural Transit Assistance Program (RTAP). RTAP is funded by the FTA and includes national and state programs that work together in a partnership. The national RTAP is administered by the American Public Works Association (APWA) in a consortium arrangement with CTAA.

CTAA has developed a voluntary training and safety management review program called “Transit Safety Plus” that is analogous to APTA’s BSMP. Since 1998, CTAA has been working with the NTSB, the Colorado DOT, the Colorado Association of Transit Agencies on Transit Safety Plus to improve the safety of the nation’s public and community transit systems in terms of:

- Compliance with safety-related laws and regulations
- Adherence to laws and procedures
- Documentation that proper safety practices are followed
- Training to ensure that safe procedures are a daily routine.

CTAA also has the following professional certification programs that are guided by a panel of industry leaders as well as CTAA’s own staff:

- Certified Community Transit Manager
- Passenger Service and Safety Driver Certification
- Professional Dispatching and Scheduling
- Vehicle Maintenance Management and Inspection (for safety and reliability).

**American Association of State Highway and Transportation Officials (AASHTO)** – This organization represents highway and transportation departments in the 50 states, the District of Columbia and Puerto Rico. AASHTO is an advocate for excellence in multimodal and intermodal transportation and is composed only of government agency representatives.

AASHTO administers the Multi-State Technical Assistance Program (MTAP) that provides a variety of networking and technical exchange services to state transit agencies. Forty-three states participate in MTAP's bi-annual meetings, committees and other communications and exchange programs. MTAP serves as an advisor to the AASHTO Standing Committee on Public Transportation (SCOPT). SCOPT is responsible for developing voluntary standards, guidance, and policy recommendations for public transportation issues and programs. SCOPT covers issues pertaining to urban and rural mass transit, commuter rail, intercity bus, ridesharing, paratransit, and specialized transit facilities for the elderly and disabled.

**Transportation Research Board (TRB)** – A unit of the National Research Council, TRB's mission is to promote innovation and progress in transportation by stimulating and conducting research, facilitating the dissemination of information, and encouraging the implementation of research results. The Transit Cooperative Research Program (TCRP) was established in 1992 to provide a continuing program of applied research on transit issues. The program is sponsored by the FTA and carried out under a three-way agreement among TRB; the Transit Development Corporation, an educational and research arm of APTA; and FTA. The selection of research projects is the responsibility of the TCRP Oversight and Project Selection (TOPS) Committee. The TOPS Committee consists of industry executives, representing the primary beneficiaries of TCRP research.

Research projects involve original research, which includes data collection, analysis, and preparation of materials for use by the transit industry. Syntheses search out and assemble useful knowledge from all available sources, especially from practitioners, and report on current practices in the subject area. In addition to these two types of studies, TCRP also conducts IDEA (Innovations Deserving Exploratory Analysis) investigations, legal studies, quick-response studies, and an International Transit Studies Program (ITSP). The results of this research are disseminated extensively throughout the transit industry.

Recent and current TCRP research initiatives related to transit bus safety include:

- A-10, Location and Design of Bus Stops on Major Streets and Highways, Completed – Published as Report 19
- A-18, Effective Programs and Techniques to Reduce Bus Accidents, Completed – Publication Pending
- A-19, Integrating School Bus and Public Transportation Services in Non-Urban Communities, Completed – Published as Report 56 and Web Document 11
- A-19A, Integrating School Bus and Public Transportation Services in Non-Urban Communities, Work Continuing
- A-22 Simulators as an Effective Training Tool to Reduce Bus Accidents, Research in Progress

- F-01, Fitness for Duty Testing in the Transit Workplace, Completed – Not Published
- F-04, Bus Operator Workstation Evaluation and Design Guidelines, Completed – Published as Report 25 and Web Document 1
- F-10, Toolbox for Transit Operator-Fatigue, Research in Progress
- G-03, Tools for Transit Risk-Exposure Identification and Treatment for Bus Systems, Completed – Published as Research Results Digests 11 and 12; Risk Management Software Developed
- J-5, Topic 01, Federal and State Licensing and Other Safety Requirements for Commercial Motor Vehicles, Operators and Equipment, In Development
- J-5, Topic 04, A Compilation of Transit Laws, In Development
- J-6, Task 30, Data Collection on Pupil Safety on Transit Buses, Completed
- J-7, Topic SA-12, Electronic Surveillance Technology on Transit Vehicles, In Development
- J-7, Topic SB-06, Use of Small Buses in Transit Service, In Development
- J-7, Topic SC-01, Safe Operating Procedures for Alternative Fueled Buses, Completed – Published as Synthesis 1
- J-7, Topic SF-01, Bus Occupant Safety, Completed – Published as Synthesis 18
- J-7, Topic SF-03, Methods for Reducing Violence and Improving Transit Security, Completed – Published as Synthesis 21
- J-7, Topic SF-07, Practices for Bus Operator Hiring, Training, Performance Evaluation, and Retention, In Development
- J-7, Topic SG-01, Risk Management for Small and Medium Transit Agencies, Completed – Published as Synthesis 13

**National Transit Institute (NTI)** – Funded by a grant from the FTA, NTI’s mission is to provide training, education, and clearinghouse services in support of public transportation and quality of life in the United States. NTI was established in 1992 at Rutgers, The State University of New Jersey. Based on industry-defined needs, a variety of training and educational resources are provided to the transit industry. They are provided free to transit agencies and transit unions. Three types of training are provided – worker-to-worker, train-the-trainer, and direct training. NTI’s resources include programs to improve workplace health and the safety of transit workers. There are courses, a resource guide, a resource CD-ROM, and hazard factsheets.

### **2.3 Other Transit Bus Safety Participants and Program**

**States** – Regulations and oversight of transit bus safety were reviewed as part of Task 2. In reviewing transit bus safety regulations and oversight at the state level, it was found that relatively little has changed since the 1986 UMTA report was published. Florida and

Colorado have distinguished themselves, however, by initiating very robust safety programs. All states have at least two agencies with some responsibilities for transit bus safety: the State DOT and the State Police. All jurisdictions have basic requirements for compliance to transit vehicle and equipment safety standards and have adopted the Federal Motor Carrier Safety Regulations (FMCSR) mandating periodic inspections for its intrastate carriers. Fifteen states have laws that are applicable to publicly owned vehicles and twenty-five jurisdictions have vehicle inspection programs. The others rely on self-inspections or inspections done by local garages and facilities.

States, the District of Columbia and Territories are recipients of FTA funding that is distributed to rural areas (Section 5311), small urban areas (Section 5307), and to nonprofit or lead agencies for coordinated transportation programs serving the elderly and disabled (Section 5310). In addition to Federal funding, most states also provide their own funding in support of public transportation.

The state government, usually the DOT, also maintains liaison with its respective FTA Regional Office and also interfaces with statewide transit organizations. Periodically, there are statewide or regional conferences that bring together state government representatives, transit operators and the FTA Regional Office staff to discuss topics of mutual interest including regulatory requirements, safety and risk management.

Many state DOTs (43) participate in AASHTO's SCOPT and MTAP. AASHTO is participating in the FTA Transit Bus Safety Program, primarily through the MTAP. The MTAP web-based ALERT system has been a valuable tool in communicating Program issues and deliverables to AASHTO members for their information and review.

**Local** – As part of Task 2, a survey was conducted to identify any localities that have transit bus safety requirements that are more restrictive than those imposed at the Federal or state levels, but little was found. It is recognized that all transit operating agencies have policies, procedures and rules that influence operating and maintenance functions, including safety-critical activities, but local external requirements are scarce. Where they exist, they are typically limited to approving the streets on which buses may operate, the location of bus stops, the speed limit of transit vehicles on exclusive rights of way, and in San Francisco, the clearance of trolley bus overhead wires.

The interests of individual transit operating agencies are represented indirectly in the FTA Transit Bus Safety Program through APTA, CTAA and their respective states through AASHTA. APTA tends to include the larger, more urban, multimodal and fixed route operators, while CTAA member tend to be smaller, less urban operators providing paratransit and social service transportation. Both APTA and CTAA are participating in the Transit Bus Safety Program and have voluntary safety oversight programs for their members, which offer models for greater Federal oversight.

**Insurance Pools** – Transit operators in several states have joined to create insurance pools, which are typically private associations operated for the benefit of their members. While they allow for economies of scale in the purchase of insurance, several also have

extensive programs to improve safety awareness and practices through technical assistance and incentive programs. The insurance pools, and the insurance industry in general, offer an opportunity for public private advocacy partnerships, which are being addressed in Task 4.

As identified in Task 2, the several insurance pools have bus safety programs and technical assistance that provide examples of best practices including the following:

- Safety Audits
- Safe Driving Incentive Programs
- Ride Checks
- Accident and Incident Reporting Procedures
- Accident Investigation Procedures
- Accident Prevention Programs
- Employment Practices
- Safety Rodeos
- Vehicle Inspection Procedures
- Preventive Maintenance Procedures
- Emergency Management Procedures
- Safety Performance Awards
- Operator and Mechanic Training Programs
- Safety/Training Scholarship Fund.

The objective of the technical assistance is to promote safety and to reduce the potential for accidents and claims. Obvious benefits include the reduced impact of accidents through both direct costs of damages and claims, and the cost of insurance coverage.

### **3. OUTREACH AND TECHNICAL ASSISTANCE MECHANISMS/TOOLS**

The following is a listing of various techniques and tools available to support the FTA Transit Bus Safety Program functions of outreach and technical assistance. Outreach involves the process of two-way communications between FTA Office of Safety and Security/Battelle Team and the agencies and organizations that play a variety of roles in the provision and safety oversight of transit bus services. Outreach also includes the identification of best practices throughout the transit industry related to transit bus safety. Technical assistance involves the process of disseminating best practices and other information concerning transit bus safety regulations, requirements and programs to the appropriate audience. In addition to identifying the outreach and technical assistance tools available to be adapted to the FTA Transit Bus Safety Program, those that are currently being utilized by the FTA and others are noted.

## **Associations**

- Association Committee/Subcommittees (e.g., APTA: Bus/Safety )
- Association Membership (AASHTO, APTA, CTAA, TRB)

## **Group Information Sharing Events**

- Industry Conferences (APTA-Bus and Paratransit)
- Panel Discussions
- Regional Conferences (State/Regional Transit Association or FTA Regions)
- Research Conferences (TRB)
- Roundtable Discussions (Construction Roundtable)
- Seminars (APTA Safety in conjunction with conferences)
- Specialty Conferences (Alertness and Fatigue)
- Tele-Conferences
- Video-Conferences
- Working Groups (Transit Bus Safety)

## **Information Outputs Often Printed (but can be provided in other media)**

- Annual Reports (SAMIS)
- Articles in Industry Journals/Periodicals
- Best Practices Summaries
- Briefing Books for Executives/Polymakers
- Catalogs (TRI)
- Conference Proceedings
- Lessons Learned Programs (Security Audits, PMO)
- Model Programs
- Newsletters (State Safety Oversight)
- Program Brochures (Office of Safety and Security)
- Program Folders-with pockets for additional information (Office of Safety and Security)
- Regulation Updates (Drug & Alcohol)
- Research Reports (TCRP)
- Research Results Digest (TCRP)
- Synthesis Reports (TCRP)
- Technical Assistance Briefs (Safety and Security Programs)
- Technical Papers
- Technical Studies/Reports

## **Information Sharing/Communication Aids**

- Bulletin Board-through website or telephone (Transit Safety and Security)
- Hotlines
- Information Clearinghouse (Transit Safety and Security)
- Website (with links to other sites and electronic documents) (Transit Safety and Security)



## **Motivation Tools**

- Marketing Awareness/Safety Consciousness Products (Safety and Security mugs)
- Recognition/Award Programs for Good Performance
- Rodeos (for operating, maintenance, safety proficiency) (APTA)

## **Non-Printed Information Output Media**

- Audio tapes of Meetings/Conference Sessions (TRB)
- CD-ROM (NTI)
- Demonstration of Technologies/Techniques
- Information Booth
- Mobile Showcase (APTS)
- PDF (Portable Document Format) Files
- Portable Displays
- Posters
- Simulations/Simulators
- Tours and Site Visits
- Videos (Tapes/DVDs)
- Vu-graph/PowerPoint Presentations

## **Requirements**

- Guidelines (Hazard Analysis)
- Handbooks (Transit Security)
- Manuals/Rulebooks/Procedures (Drug Testing)
- Recommended Practices (Fire Safety)
- Regulations (State Safety Oversight and Drug & Alcohol)
- Standards (FMCSS)

## **Studies/Reviews**

- Assessments (ADA Research and Development Needs)
- Case Studies (Transit Security on Bus Systems)
- Crosscutting Studies
- Data/Trend Analysis (NTD)
- Evaluation of Demonstrations/Promising Innovations (APTS)
- Management Information Systems (SAMIS)
- Peer Reviews/Audits (APTA-BSMP)
- Peer-to-Peer Consultations (via phone or in person) (CTAA)
- Research (TCRP)
- Risk Analysis (Alternative Fuels)
- Safety Investigations (NY MTA by FTA)
- Safety Reviews (WMATA Metrorail Operations by FTA)

## Training

- Interactive, PC-Based, Self-Directed Training Programs
- Remote Training Via Video-Conferencing
- Testing/Certification
- Training Courses/Workshops (with fliers, curricula, workbooks, instructional media, handouts)
- Train-the-Trainer Programs
- Training Utilizing Simulators

## 4. OUTREACH AND TECHNICAL ASSISTANCE PLAN AND SCHEDULES

The following is an initial approach to transit bus safety outreach and technical assistance activities based on the currently available schedule and work scope information. The baseline of information includes the scope and status of Tasks 1-5 of the FTA Transit Bus Safety Program and the current schedule of upcoming deliverables and industry association outreach events. Task 6 is not included, since it is generally independent of the other five tasks, but its products will be made available as part technical assistance initiatives. The following is a description and status of the various activities that will be included in, or directly affect, the accomplishment of this task. The relationship of the various elements is depicted on the schedule that follows, which is intended to aid discussion and achieving consensus, rather than presenting a formal plan.

**Transit Bus Safety Program Tasks** – The status and schedule of deliverables are as follows:

- Task 1 – Kickoff Meeting: Completed.
- Task 2 – Existing Regulations and Oversight: all preliminary Draft Reports have been submitted; the Draft Final Report was submitted on March 19; and the Final Report is scheduled for May 1.
- Task 3 – Model Transit Bus Safety Program: the Draft Final Report was submitted on March 26; it is suggested that the Final Report be scheduled for June 8, after the three industry association meetings in May.
- Task 4 – Development of Public and private Sector Advocacy Partnerships: the Draft Report was submitted on March 19; it is suggested that the Final Report be scheduled for June 8, after the three industry association meetings in May.
- Task 5 – Development of Technical Assistance Projects/Best Practices: this deliverable is the Draft Marketing Plan; it is suggested that the Final Marketing Plan be scheduled for June 15, after the three industry association meetings in May and the Tasks 3 and 4 Final Reports have been submitted.

**Industry Outreach** – continue efforts with APTA, CTAA, AASHTO and others.

**Working Group** – FTA is assembling a cross section of industry representatives specifically to support the Transit Bus Safety Program. This is in addition to the

continuing participation of APTA, CTAA and AASHTO. This group will meet periodically with FTA and the Battelle Team to review and comment on the Program's direction and progress, and be part of the consensus-building process. Support will be provided to FTA and the Working Group as part of Task 5, as required. The initial meeting will be on April 30 in Washington, DC.

**PowerPoint Presentation** – there will be a continual updating of the Transit Bus Safety Program presentation to support the various outreach activities of FTA and the Battelle Team.

**FTA Office of Safety and Security Brochure** – periodic additions of the four-page glossy brochures will be supported with current information on the Transit Bus Safety Program, or a separate brochure(s) will be developed focusing only on the Program, if desired by FTA.

**Conference Support and Participation** – to communicate information and receive industry input on the Transit Bus Safety Program, the Battelle Team will be available for support to FTA, as required, for upcoming transit industry conferences including the following:

- APTA Bus and Paratransit, May 5-10 in Calgary
- AASHTO-MTAP, May 14-15 in Portland, ME
- CTAA EXPO 2001, May 20-25 in Salt Lake City
- State Affairs Conference (AASHTO, APTA, CTAA), July 18-20 in Buffalo
- State and Regional Meetings and Conferences, as appropriate.

**New TSI Training Courses** – under a separate FTA work assignment, three courses for delivery through TSI are being developed. Currently, the outlines are being reviewed, and the full courses will be completed and ready for delivery before the end of September 2001, at which time they will be available to support the Transit Bus Safety Program technical assistance objectives. They address the following topics:

- Bus System Safety
- Crime Prevention Through Environmental Design (CPTED)
- Safety Evaluations of Alternative Fuels Facilities and Equipment.

While Task 5 called for the development of a Bus Safety Program Training and Workshop Course, the courses under development, especially Bus System Safety, may negate the need for the Task 5 course. It is suggested that existing courses be reviewed for their compatibility with the new courses and consistency with the results of the Transit Bus Safety Program. Also, the need for additional transit bus safety training and workshop courses, or modifications to existing programs, will be considered.

**Research** – ongoing and planned initiatives will be reviewed to determine their adequacy in support of Transit Bus Safety Program objectives for identifying best practices and providing technical assistance.

**Technical Assistance** – in support of the implementing of the Transit Bus Safety Program, the following will be accomplished:

- Identify (Survey) Industry Needs
- Assess Existing Programs and Techniques
- Formulation New Program
- Develop Appropriate Dissemination Products
- Disseminate, as Appropriate, for Intended Markets.

**Best Practices** – in concert with the program of technical assistance, the following will be accomplished related to promoting exemplary methods and techniques in enhancing transit bus safety:

- Identify and Review
- Develop Appropriate Documentation/Dissemination Products
- Disseminate, as Appropriate, for Intended Markets.

Draft and final reports will be prepared to compile and describe all of the Transit Bus Safety Best Practices that are identified as part of this task. If required, Best Practice documentation will be prepared on specific topics, such as “hours of service,” “fitness for duty,” “use of training simulators,” “safety incentive programs,” “configuration management practices,” etc.

**Transit Bus Safety Oversight Model Implementation** – support will be provided to advance the adoption and utilization of the oversight program resulting from Task 3 utilizing the appropriate combination of outreach, dissemination and technical assistance tools identified in Section 3 of this report.

| FTA Transit Bus Safety - Schedule of Outreach and Technical Assistance Activities |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
|---|------------------------|----|----|----|-------|----|----|----|-----|----|----|----|------|---|----|----|------|---|----|----|--------|---|----|----|----|----|--|--|--|--|--|--|
| Activity/Month (M/Y)  | Week Ending (all 2001) |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
|   | March                  |    |    |    | April |    |    |    | May |    |    |    | June |   |    |    | July |   |    |    | August |   |    |    |    |    |  |  |  |  |  |  |
|   | 9                      | 16 | 23 | 30 | 6     | 13 | 20 | 27 | 4   | 11 | 18 | 25 | 1    | 8 | 15 | 22 | 29   | 6 | 13 | 20 | 27     | 3 | 10 | 17 | 24 | 31 |  |  |  |  |  |  |
| Task 1 - Kickoff Meeting  | Completed              |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| Task 2 - Regulations & Oversight Report   |                        |    | ▲  |    |       |    |    |    | ▲   |    |    |    |      |   | ▲  |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| Task 3 - Model Bus Safety Program Report  |                        |    | ▲  | ▲  |       |    |    |    |     |    |    |    |      | ▲ | ▲  |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| Task 4 - Public-Private Partnerships Report                                       |                        |    | ▲  |    |       |    |    |    |     |    |    |    |      | ▲ |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| Task 5 - Outreach/TA/Best Practices   |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| o Marketing Plan  |                        |    |    | ▲  |       |    |    |    |     |    |    |    |      |   | ▲  |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| o Industry Outreach-APTA, CTAA, AASHTO  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| o Working Group-Initiation and Meetings   |                        |    |    |    |       |    |    |    | ▲   |    |    |    |      |   |    |    |      | ▲ |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| o PowerPoint Presentation-Update  |                        |    |    |    |       |    | ▲  |    | ▲   |    |    |    |      |   |    | ▲  |      | ▲ |    |    |        |   |    |    | ▲  |    |  |  |  |  |  |  |
| o FTA Safety and Security Brochure(s)   |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| o Conference Participation and Support  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - APTA Bus and Paratransit  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - AASHTO-MTAP   |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - CTAA EXPO 2001  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - State Affairs (AASHTO, APTA, CTAA)  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - State and Regional Conferences  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| o New TSI Training Courses: Coordinate  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| o Research: Review Needs and Initiatives  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| o Technical Assistance  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - Identify (Survey) Industry Needs  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - Assess Existing Programs/Techniques   |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - Formulate New Program   |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - Development Dissemination Products  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - Disseminate to Intended Markets   |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| o Best Practices  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - Identify and Review   |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - Develop Dissemination Products  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| - Disseminate to Intended Markets   |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |
| o Oversight Model Implementation Support  |                        |    |    |    |       |    |    |    |     |    |    |    |      |   |    |    |      |   |    |    |        |   |    |    |    |    |  |  |  |  |  |  |